# Video Cassette Recorder

**Operating Instructions** 



#### WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Mains lead must only be changed at a qualified service shop.

#### Notice for customers in the United Kingdom and Republic of Ireland

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience. If the 13A fitted plug does not match the outlet socket in your home, please refer to your Appointed Sony Dealer for advice.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS1362, (i.e., marked with ♠ or ♥ mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

#### **Precautions**

#### Safety

- · This unit operates on 230 V AC, 50 Hz. Check that the unit's operating voltage is identical with your local power supply.
- · If anything falls into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- · The unit is not disconnected from the mains as long as it is connected to the mains, even if the unit itself has been turned off.
- Unplug the unit from the wall outlet if you do not intend to use it for an extended period of time. To disconnect the cord, pull it out by the plug, never by the cord.

#### Installing

- Allow adequate air circulation to prevent internal heat buildup.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- · Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Do not install the unit in an inclined position. It is designed to be operated in a horizontal position
- · Keep the unit and cassettes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- · Do not place heavy objects on the unit.

If the unit is brought directly from a cold to a warm location, moisture may condense inside the VCR and cause damage to the video head and tape. When you first install the unit, or when you move it from a cold to a warm location, wait for about three hours before operating the unit.

#### Caution

Television programmes, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

#### Compatible colour system

This VCR is designed to record and play back using the PAL colour system. Recording of video sources based on other colour systems cannot be guaranteed.

VIDEO Plus+ and PlusCode are registered trademarks of Gemstar Development Corporation. The VIDEO Plus+ system is manufactured under license from Gemstar Development Corporation.

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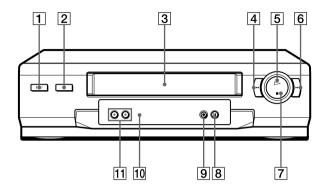
## **Back Cover**

**Ouick Start Guide** 

# Index to parts and controls

Refer to the pages indicated in parentheses ( ) for details.

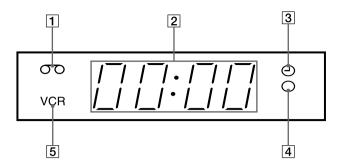
# Front panel



- 11/0 (on/standby) switch (33)
- $\boxed{2} \triangleq \text{(eject) button (27)}$
- 3 Tape compartment
- **4 ◄** (rewind) button (27) (39)
- **5** > (play) button (27) (39)
- **6** ►► (fast-forward) button (27) (39)

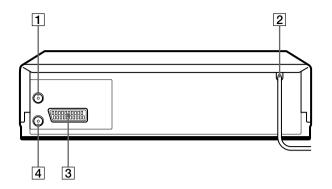
- **7** (stop) button (27) (47)
- **8 II** (pause) button (27) (47)
- **9** REC (record) button (29) (40) (47)
- **10** Remote sensor (10)
- 11 PROGRAM +/- buttons (39) (43)

# **Display window**



- 1 Tape indicator (35)
- Time counter/clock/line/programme position indicator (27) (29) (47)
- **3** Timer indicator (33) (37)
- 4 Recording indicator (29)
- **5** VCR indicator (13) (30)

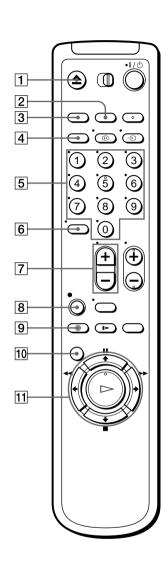
# Rear panel



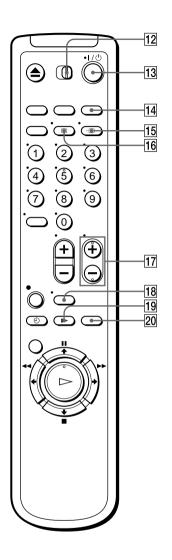
- antenna) connector (12) (13)
- 2 Mains lead (14)

- **3** AV1 (EURO AV) connector (13) (46)
- **4** 👿 OUT TO TV connector (12) (13)

#### Remote commander



- **1 ≜** EJECT button (27)
- 2 COUNTER/REMAIN button (30)
- **3** CLEAR button (27) (32) (41)
- 4 SP (Standard Play)/LP (Long Play) button (29)
- **5** Programme number buttons (11) (30)
- **6**-/-- (ten's digit) button (11) (30)
- $\boxed{7}$   $\angle$  (volume) +/- buttons (for TV) (11)
- **8** REC (record) button (29) (40)
- **9** 🕁 TIMER button (32) (36)
- **10** MENU button (25) (41)
- **11** PAUSE/**↑** button (25) (27)
  - STOP/**↓** button (25) (27)
  - **◄** REW (rewind)/**♣** button (27) (39)
  - FF (fast-forward)/ $\Longrightarrow$  button (27) (39)
  - ▶ PLAY/OK button (25) (27)



- 12 TV / VIDEO remote control switch (10)
- **13 I**/**!** (on/standby) switch (11) (33)
- **14** INPUT SELECT button (30) (37) (47)
- 15 TV/VIDEO button (11) (13) (30)
- **16** 🕒 DISPLAY button (30)
- 17 PROG (programme) +/- buttons (11) (29)
- **18** WIDE button (*for TV*) (11)
- **19** ► SLOW button (39)
- **20**×2 button (39)

# Step 1 : Unpacking

Check that you have received the following items with the VCR:

• Remote commander



• Aerial cable



• R6 (size AA) batteries

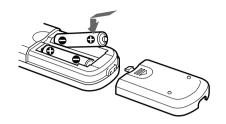


# Step 2: Setting up the remote commander

# Inserting the batteries

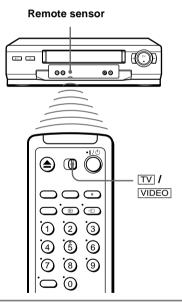
Insert two R6 (size AA) batteries by matching the + and - on the batteries to the diagram inside the battery compartment.

Insert the negative (–) end first, then push in and down until the positive (+) end clicks into position.

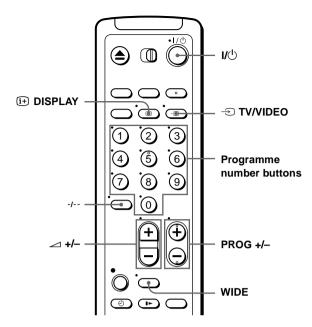


# Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your Sony TV. If the TV does not have the R symbol near the remote sensor, this remote commander will not operate the TV.



To operate	Set TV / VIDEO to	
the VCR	VIDEO and point at the remote sensor at the VCR	
a Sony TV  TV and point at the remote sensor at the TV		



#### TV control buttons

То	Press
Set the TV to standby mode	I/Ů
Select an input source: aerial in or line in	→ TV/VIDEO
Select the TV's programme position	Programme number buttons, -/, PROG +/-
Adjust the volume of the TV	⊿ +/-
Call up the on-screen display	i+ DISPLAY
Switch to/from wide mode of a Sony wide TV.	WIDE

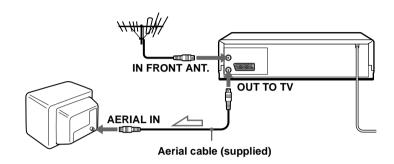
#### **Notes**

- With normal use, the batteries should last about three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery together with an old one.
- Do not use different types of batteries together.
- Some buttons may not work with certain Sony TVs.

# Step 3: Connecting the VCR

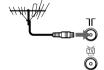
If your TV has a Scart (EURO-AV) connector, see page 13.

# If your TV does not have a Scart (EURO-AV) connector



: Signal flow

Disconnect the aerial cable from your TV and connect it to IN FRONT ANT. on the rear panel of the VCR.



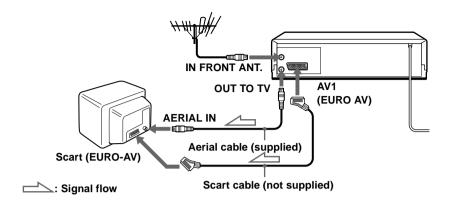
2 Connect OUT TO TV of the VCR and the aerial input of your TV using the supplied aerial cable.



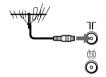
#### Note

• When you connect the VCR and your TV only with an aerial cable, you have to tune your TV to the VCR (see page 14).

# If your TV has a Scart (EURO-AV) connector



Disconnect the aerial cable from your TV and connect it to IN FRONT ANT. on the rear panel of the VCR.



Connect OUT TO TV of the VCR and the aerial input of your TV using the supplied aerial cable.



Connect AV1 (EURO AV) on the VCR and the Scart (EURO-AV) connector on the TV with the optional Scart cable.

This connection improves picture and sound quality. Whenever you want to watch the VCR picture, press TV/VIDEO to display the VCR indicator in the display window.



# Step 4: Setting up the VCR with the Auto **Set Up function**

Before using the VCR for the first time, set up the VCR using the Auto Set Up function. With this function, you can set the TV channels, guide channels for the VIDEO Plus+ system, and VCR clock automatically.

1 Turn on your TV and set it to the video channel.

> If your TV does not have a Scart (EURO-AV) connector, tune the TV to channel 21 (the initial RF channel for this VCR). Refer to your TV manual for TV tuning instructions. If the picture does not appear clearly, see "To change the RF channel."

2 Connect the mains lead to the mains.

> The VCR automatically turns on, and the message for the Auto Set Up function appears.

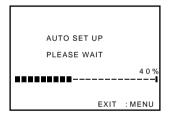
3



Press OK.

The VCR starts searching for all of the receivable channels and presets them in the appropriate order for your local area.

If you want to change the order of the channels or disable unwanted programme positions, see "Changing/disabling programme positions" on page 20.



After the search or download is complete, the current time appears for any stations that transmit a time signal. If the time does not appear, set the clock manually. See "Setting the clock" on page 25.

# To cancel the Auto Set Up function

Press MENU.

# To change the RF channel

If the picture does not appear clearly on the TV, change the RF channel on the VCR and TV. Select INSTALLATION from the menu, then press 1/4 to highlight VCR OUTPUT CH and press -. Select the RF channel by pressing the  $\uparrow/\downarrow$  buttons. Then, tune the TV to the new RF channel so that a clear picture appears.

#### Tip

• If you want to change the language for the on-screen display, see page 16.

#### Notes

- Whenever you operate the Auto Set Up function, some of the settings (VIDEO Plus+, timer, etc.) will be reset. If this happens, you have to set them again.
- After using the Auto Set Up function, the message for the Auto Set Up does not appear automatically when you connect the mains lead again. If you want to use the Auto Set Up function again, press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK. Press ↑/↓ to highlight AUTO SET UP, then repeat the procedure from step 3.

# Selecting a language

If you prefer an on-screen language other than English, use the on-screen display to select another language.

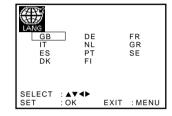
## Before you start...

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.



Press MENU, then press  $\uparrow/\downarrow/$ → to highlight LANGUAGE SET and press OK.





2



Press  $\uparrow/\downarrow/\longleftarrow/\longrightarrow$  to highlight the abbreviation of the desired language from the table below, then press OK.

# The abbreviations of the languages are as follows:

Abbreviation	Language
GB	English
DE	German
FR	French
IT	Italian
NL	Dutch
GR	Greek

Abbreviation	Language
ES	Spanish
PT	Portuguese
SE	Swedish
DK	Danish
FI	Finnish

# **Presetting channels**

If some channels could not be preset using the Auto Set Up function, you can preset them manually.

# Before you start...

- · Turn on the VCR and the TV.
- · Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

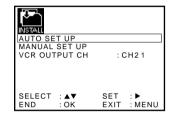
1



Press MENU, then press **↑**/**↓**/**←**/

→ to highlight INSTALLATION and press OK.





2



Press **↑**/**↓** to highlight MANUAL SET UP, then press **→**.

**	TV ST	ATION TAE	BLE **
PR	СН	NAME	DEC
1	027	AAB-	OFF
2	029	L MN-	OFF
3	030	CDE-	OFF
4	032	IJK-	OFF
5			
▲▼	<b>&gt;</b>	SWAPE	ING : OK
DELE	ETE : CL	EAR EXI	T : MENU

3



Press **↑**/**↓** to highlight the row which you want to preset, then press **→**.

To display other pages for programme positions 6 to 80, press 
↑/

♣ repeatedly.

**	MANUAL	TUNING	**
PR	:	5	
CH MFT	<u> </u>		
NAME	:		
SELECT END	「 : <b>▲▼</b> : OK	SET EXIT	: <b>∢⊳</b> : MENU

4



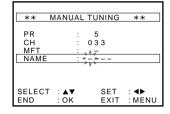
Press ←/→ repeatedly until the channel you want is displayed.

l							
*	*	MANUA	۱L	TUI	NING	**	
Р	R		:	5			
С	H		:	03	3		
N	1FT		:	-			
N	IAME		:				
SE EN		: <b>▲▼</b> : OK			SET EXIT	<b>∢⊳</b> MEN	U

5



Press **↑**/**↓** to highlight NAME, then press -.



MANUAL TUNING

5 0 3 3

SET

: MENU

\*\*

PR

СН

MFT

NAME

SELECT

6



Enter the station name.

1 Press **↑**/**↓** to select a character. Each time you press **\( \frac{1}{2} \)**, the character changes as shown below.

$$A \rightarrow B \rightarrow ... \rightarrow Z \rightarrow 0 \rightarrow 1 \rightarrow$$
  
...  $\rightarrow 9 \rightarrow A$ 

2 Press  $\rightarrow$  to set the next character.

The next space is flashed.

To correct a character, press ←/→ until the character you want to correct is flashed, then reset it.

You can set up to 4 characters for the station name.



Press OK to confirm the station name.

8



Press MENU to exit the menu.

# If the picture is not clear

If the picture is not clear, you may use the Manual Fine Tuning (MFT) function. After step 4, press  $\P/\P$  to select MFT. Press  $\P/\P$  to get a clear picture, then press MENU to exit the menu.

#### Note

• When adjusting MFT, the menu may become difficult to read due to interference from the picture being received.

# Changing/disabling programme positions

After setting the channels, you can change the programme positions as you like. If any programme positions are unused or contain unwanted channels, you can disable them

You can also change the station names. If the station names are not displayed, you can enter them manually.

# Changing programme positions

#### Before you start...

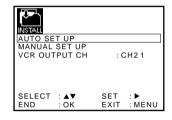
- · Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.





Press MENU, then press  $\frac{1}{\sqrt{1}}$ → to highlight INSTALLATION and press OK.





2



Press **↑**/**↓** to highlight MANUAL SET UP, then press  $\rightarrow$ .

**	TV ST	ATION TAE	3LE **
l			
PR	CH	NAME	DEC
1	027	AAB-	OFF
2	029	L MN-	OFF
3	030	CDE-	OFF
4	032	IJK-	OFF
5			
l			
▲▼	<b>&gt;</b>	SWAPF	PING : OK
DEL	ETE : CL	EAR EXI	T : MENU

3



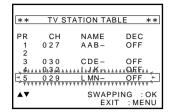
Press  $\uparrow/\downarrow$  to highlight the row which you want to change the programme position.

To display other pages for programme positions 6 to 80, press  $\uparrow/\downarrow$  repeatedly.

**	TV S1	ATION TAE	3LE **
l			
PR	СН	NAME	DEC
_ 1	027	AAB-	OFF
2	029	L MN-	OFF
3	030	CDE-	OFF
4	032	IJK-	OFF
5			
l			
▲▼	<b>&gt;</b>	SWAPF	PING : OK
DEL	ETE :Cl	EAR EXI	T : MENU



Press OK, then press **↑**/**↓** to move to the desired programme position.



5



Press OK to confirm the setting.

6

To change the programme position of another station, repeat steps 3 through 5.

7



Press MENU to exit the menu.

# Disabling unwanted programme positions

After presetting channels, you can disable unused programme positions. The disabled positions will be skipped later when you press the PROG +/- buttons.

# Before you start...

- · Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

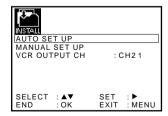
1



Press MENU, then press **↑**/**↓**/**←**/

→ to highlight INSTALLATION, and press OK.





2



Press **↑**/**↓** to highlight MANUAL SET UP, then press  $\rightarrow$ .

**	TV ST	ATION TAE	3LE **
PR	СН	NAME	DEC
1	027	AAB-	OFF
2	029	L MN-	OFF
3	030	CDE-	OFF
4	032	IJK-	OFF
5			
l			
IA▼	<b>•</b>	SWAPF	ING : OK
DELI	ETE : CL	EAR EXI	T : MENU

3



Press **↑**/**↓** to highlight the row which you want to disable.

To display other pages for programme positions 6 to 80, press **↑**/**↓** repeatedly.

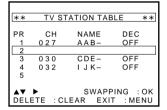
**	TV ST	ATION TAE	BLE **
PR	СН	NAME	DEC
_1_	027	AAB-	OFF
2	029	L MN-	OFF
3	030	CDE-	OFF
4	032	IJK-	OFF
5			
▲▼	<b>&gt;</b>	SWAPF	ING : OK
DELI	ETE : CL	EAR EXI	T : MENU

4



Press CLEAR.

The selected row will be cleared as shown on the right.



Repeat steps 3 and 4 for any other programme positions you want to disable.

6



Press MENU to exit the menu.

#### Note

• Be sure to select the programme position you want to disable correctly. If you disable a programme position by mistake, you need to reset that channel manually.

# Changing the station names

You can change or enter the station names (up to 4 characters). The VCR must receive channel information for station names to appear automatically.

## Before you start...

- · Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

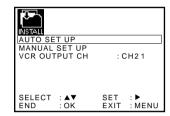




Press MENU, then press **↑**/**↓**/**←**/

→ to highlight INSTALLATION and press OK.





2



Press **↑**/**↓** to highlight MANUAL SET UP, then press **→**.

**	TV ST	ATION TAB	LE **
PR	CH	NAME	DEC
1	027	AAB-	OFF
2	029	L MN-	OFF
3	030	CDE-	OFF
4	032	IJK-	OFF
5	033		OFF
▲▼	<b>•</b>	SWAPP	ING : OK
DEL	ETE : CL	EAR EXI	Γ : MENU

3



Press **↑**/**↓** to highlight the row which you want to change or enter the station name, then press **→**.

To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.

**	MANUAL	TUNING	**
PR CH	:	5 0 3 3	
MFT NAME	:		
SELECT END	: <b>▲▼</b> : OK	SET EXIT	: <b>◀▶</b> : MENU

4



Press **↑**/**↓** to highlight NAME, then press **→**.

MANUAL	TUNING	**
:	5	
:	033	
	4.7	
: ◄	_=	
	<b>A</b> _	
: ▲▼	SET	: ◆▶
: OK	EXIT	: MENU
	: ▲▼	: 033 : 4- : 4-k

5



Enter the station name.

Press **↑**/**↓** to select a character. Each time you press **\( \frac{1}{2} \)**, the character changes as shown below.

$$A \rightarrow B \rightarrow ... \rightarrow Z \rightarrow 0 \rightarrow 1 \rightarrow$$
  
...  $\rightarrow 9 \rightarrow A$ 

2 Press  $\rightarrow$  to set the next character.

The next space is flashed.

To correct a character, press ←/→ until the character you want to correct is flashed, then reset it.

\*\*

PR

СН

END

MFT NAME

SELECT : ▲▼

OK

MANUAL TUNING

5 0 3 3

SET

EXIT

MENU

You can set up to 4 characters for the station name.

6



Press OK to confirm the new name.



Press MENU to exit the menu.

# Setting the clock

You must set the time and date on the VCR to use the timer features properly.

The Auto Clock Set function works only if a station in your area is broadcasting a time signal.

#### Before you start...

- · Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

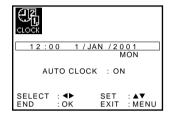




Press MENU, then press ↑/↓/←/

→ to highlight CLOCK SET and press OK.

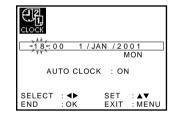




2



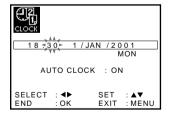
Press **↑**/**↓** to set the hour.



3



Press  $\longrightarrow$  to select the minutes and set the minutes by pressing  $\P/\P$ .

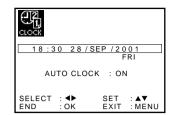


4



Set the day, month, and year in sequence by pressing  $\rightarrow$  to select the item to be set, and press  $\uparrow/\downarrow$  to select the digits, then press  $\rightarrow$ .

The day of the week is set automatically.

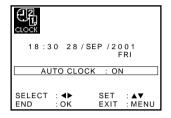


5

Press  $\uparrow/\downarrow$  to select ON for the setting the Auto Clock Set function.

The VCR automatically set the clock by the channel between PR01 to PR05 broadcasting the time signal.

If you do not need the Auto Clock Set function, select OFF.



6



Press MENU to exit the menu.

## Tips

- If you set AUTO CLOCK to ON, the Auto Clock Set function is activated whenever the VCR is turned off. The time is adjusted automatically by making reference to the time signal from the station.
- To change the digits while setting, press to return to the item to be changed, and select the digits by pressing  $\uparrow/\downarrow$ .

# Playing a tape

## Before you start...

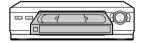
• Refer to "Index to parts and controls" for button locations.

Turn on your TV and set it to the video channel.

2

Insert a tape.

The VCR turns on and starts playing automatically if you insert a tape with its safety tab removed.



3



Press > PLAY.

When the tape reaches the end, it will rewind automatically.

#### Additional tasks

То	Press
Stop play	■ STOP
Pause play	■ PAUSE
Resume play after pause	■ PAUSE or > PLAY
Fast-forward the tape	►► FF during stop
Rewind the tape	<b>◄</b> REW during stop
Eject the tape	<b>≜</b> EJECT

#### To use the time counter

Press CLEAR at the point on the tape that you want to find later. The counter in the display window resets to "00:00." Search for the point afterwards by referring to the counter.



To display the counter on the TV screen, press in DISPLAY.

#### Notes

- The counter resets to "00:00" whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.
- Depending on your TV, the following may occur while playing an NTSC-recorded tape:
  - -The picture becomes black and white.
  - -The picture shakes.
  - -No picture appears on the TV screen.
  - -Black streaks appear horizontally on the TV screen.
  - -The colour density increases or decreases.
- While setting the menu on the TV screen, buttons for playback on the remote commander do not function.

# **Basic Operations**

# **Recording TV programmes**

# Before you start...

· Refer to "Index to parts and controls" for button locations.

1

Turn on your TV and set it to the video channel.

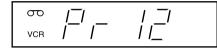
2

Insert a tape with its safety tab in place.

3



Press PROG +/- to select the programme position you want to record.

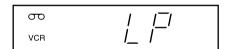


4



Press SP/LP to select the tape speed, SP or LP.

LP (Long Play) provides recording time twice as long as SP. However, SP (Standard Play) produces better picture and audio quality.



5



Press ● REC to start recording.

The recording indicator lights up red in the display window.



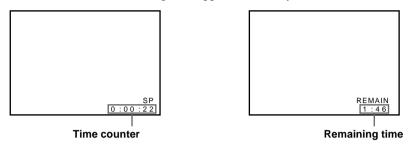
Recording indicator

To stop recording

Press ■ STOP.

## To check the remaining time

Press (i+) DISPLAY. With the display on, press COUNTER/REMAIN to check the remaining time. Each time you press COUNTER/REMAIN, the time counter and the remaining time appear alternately.



In order to get an accurate remaining time indication, be sure TAPE SELECT in the USER SET menu is set according to the tape type you use (see page 44).

## To watch another TV programme while recording

- Press TV/VIDEO to turn off the VCR indicator in the display window.
- **?** Select another programme position on the TV.

# To save a recording

To prevent accidental erasure, break off the safety tab as illustrated. To record on the same tape again, cover the tab hole with adhesive tape.



#### Tips

- To select a programme position, you can use the programme number buttons on the remote commander. For two-digit numbers, press the -/-- (ten's digit) button followed by the programme number buttons.
- If you connect additional equipment to an input connector, you can select the input signal using the INPUT SELECT or PROG +/- buttons.
- The (+) DISPLAY information appears on the TV screen indicating information about the tape, but the information won't be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV.
- The remaining tape length may not be indicated accurately for short tapes such as E-20 or E-30, or tapes recorded in the LP mode.

#### Notes

- The (i+) DISPLAY information does not appear during pause mode and the various speeds of playback mode. However, it will appear during normal playback.
- If a tape has portions recorded in both PAL and NTSC systems, the time counter reading will not be correct. This discrepancy is due to the difference between the counting cycles of the two video systems.
- When you insert a non-standard commercially available tape, the remaining time may not be correct.
- The remaining time is intended for rough measurement only.
- About 30 seconds after the tape begins playback, the tape remaining time will be displayed.

# Recording TV programmes using the **VIDEO Plus+ system**

The VIDEO Plus+ system is the feature that simplifies programming the VCR to make timer recordings. Just enter the PlusCode number listed in the TV programme guide. The date, times, and programme position of that programme are set automatically. You can preset a total of six programmes, including settings made with other timer methods.

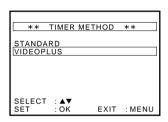
## Before you start...

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording
- Turn on your TV and set it to the video channel.
- Set TIMÉR METHOD to VIDEOPLUS or VARIABLE in the USER SET menu (see page
- Refer to "Index to parts and controls" for button locations.

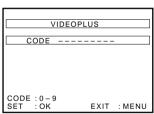
# TIMER

#### Press ( ) TIMER.

 When you set TIMER METHOD to VARIABLE: The TIMER METHOD menu appears on the TV screen. Press **↑**/**↓** to select VIDEOPLUS, then press OK.



 When you set TIMER METHOD to VIDEOPLUS: The VIDEOPLUS menu appears on the TV screen.



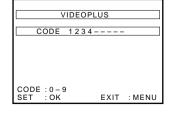
2



Press the programme number buttons to enter the PlusCode number.

If you make a mistake, press CLEAR and re-enter the correct number.

CLEAR





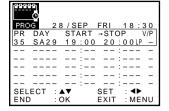


Press OK.

The programme position, date, start and stop times, tape speed, and VPS/PDC setting appear on the TV screen.



• If "--" appears in the "PR" (programme) column (this may happen for local broadcasts), you have to set the appropriate programme position manually.



Press  $\uparrow/\downarrow$  to select the desired programme position.

To record from another source connected to the input connector, press INPUT SELECT to display the connected line in the "PR" position.

You will only have to do this operation once for the referred channel. The VCR will then store your setting.

If the information is incorrect, press CLEAR to cancel the setting.

SA29

SELECT

19:00

OK

SET

EXIT

MENU

4



If you want to change the date, tape speed, and the VPS/PDC setting:

- 1 Press ←/→ to select the item you want to change.
- **2** Press  $\uparrow/\downarrow$  to reset it.
- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 34.
- To use the VPS/PDC function, set V/P to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 34.
- To use the Auto Tape Speed function, press 

  to display "AUTO" in the blank positions next to the "V/P" row. For details, see "To use the Auto Tape Speed function" on page 34.

5



Press MENU to exit the menu.

6



Press I/ to turn off the VCR.

The  $ext{(d)}$  indicator appears in the display window and the VCR stands by for recording.

To record from another source, leave the connected equipment switched on.

## To stop recording

To stop the VCR while recording, press  $\blacksquare$  STOP.

## Daily/weekly recording

In step 4 above, press ♣ to select the recording pattern. Each time you press ♣, the indication changes as shown below. Press ♠ to change the indication in reverse order.

today → DLY (Monday to Sunday) → W-SAT (every Saturday) ..... → W-SUN (every Sunday)  $\rightarrow$  1 month later  $\rightarrow$  (dates count down)  $\rightarrow$  today

## Timer recording with VPS/PDC signals

Some broadcast systems transmit VPS (Video Programme System) or PDC (Programme Delivery Control) signals with their TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delays, early starts, or broadcast interruptions.

To use the VPS/PDC function, set V/P to ON in step 4 above. You can also use the VPS/PDC function for a source connected to the input connector.

## To use the Auto Tape Speed function

In step 4 above, press  $\blacksquare$  to select AUTO. When you are recording a programme in the SP mode and the remaining tape length becomes shorter than the recording time, the recording tape speed is automatically changed to the LP mode. Note that some noise will appear on the picture when the tape speed is changed. To operate this function correctly, the "TAPE SELECT" setting in the USER SET menu must be accurate. (page 44)

# To use the VCR after setting the timer

To use the VCR before a recording begins, just press 1/0. The (4) indicator turns off and the VCR switches on. Remember to press 1/(1) to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 27).
- Display tape information on the TV screen (page 30).
- Check the timer settings (page 41).
- Watch another TV programme (page 30).

#### Tips

- You can set the extended time for the VIDEO Plus+ setting by 10, 20, 30, or 60 minutes. Set VIDEOPLUS+ EXTEND in the EASY OPERATION menu to the desired extended time (page 45).
- To check, change, or cancel the programme setting, see "Checking/changing/ cancelling timer settings" (page 41).
- To set the tape speed, you can also use the SP/LP button.

#### Notes

- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The 0 and  $\overleftarrow{OO}$  indicators flash in the display window when you press I/0 with no tape inserted.
- When you set TIMER METHOD to STANDARD in the USER SET menu, the VIDEOPLUS menu does not appear on the TV screen. Select VIDEOPLUS or VARIABLE.

# Setting the timer manually

If VIDEO Plus+ is not available in your area, follow the instructions below to set the timer to record programmes.

## Before you start...

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording
- Turn on your TV and set it to the video channel.
- Set TIMER METHOD to STANDARD or VARIABLE in the USER SET menu (see page
- · Refer to "Index to parts and controls" for button locations.

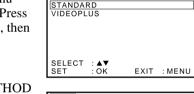


## TIMER (-)

#### Press ( ) TIMER.

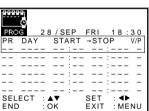
 When you set TIMER METHOD to VARIABLE: The TIMER METHOD menu appears on the TV screen. Press  $\uparrow/\downarrow$  to select STANDARD, then press OK.





\*\* TIMER METHOD

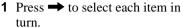
 When you set TIMER METHOD to STANDARD: The TIMER PROGRAMMING menu appears on the TV screen.

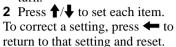


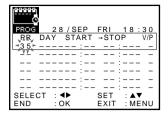


SELECT

Set the programme position, date, start and stop times, tape speed, and VPS/PDC function:







- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 37.
- To use the VPS/PDC function, set V/P to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 34.
- To record from another source connected to the input connector, press INPUT SELECT to display the connected line in the "PR" position.
- To use the Auto Tape Speed function, press 

  to display "AUTO" in the blank positions next to the "V/P" row. For details, see "To use the Auto Tape Speed function" on page 34.

3



Press MENU to exit the menu.

1



Press I/ to turn off the VCR.

The - indicator appears in the display window and the VCR stands by for recording.

To record from another, leave the connected equipment switched on.

### To stop recording

To stop the VCR while recording, press  $\blacksquare$  STOP.

## Daily/weekly recording

In step 2 above, press  $\P$  to select the recording pattern. Each time you press  $\P$ , the indication changes as shown below. Press  $\P$  to change the indication in reverse order.

today  $\rightarrow$  DLY (Monday to Sunday)  $\rightarrow$  W-SAT (every Saturday) .....  $\rightarrow$  W-SUN (every Sunday)  $\rightarrow$  1 month later  $\rightarrow$  (dates count down)  $\rightarrow$  today

#### Tips

- Even if you set TIMER METHOD to VIDEOPLUS in the USER SET menu, you can set the timer manually. Press MENU to select TIMER PROGRAMMING, then go to step 2.
- To check, change, or cancel the programme setting, see "Checking/changing/ cancelling timer settings" (page 41).
- To set the tape speed, you can also use the SP/LP button.

#### Notes

- When setting the timer with VPS/PDC signals, enter the start and stop times exactly as indicated in the TV programme guide. Otherwise, the VPS/PDC function won't work.
- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The ② and 🕥 indicators flash in the display window when you press 1/७ with no tape inserted.

# Playing/searching at various speeds

#### Before you start...

• Refer to "Index to parts and controls" for button locations.

Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, hold down ►► FF. During rewind, hold down ◄◄ REW.
Play at high speed	<ul> <li>During playback, press ►► FF or ◄◄ REW.</li> <li>During playback, hold down ►► FF or ◄◄ REW. When you release the button, normal playback resumes.</li> </ul>
Play at twice the normal speed	During playback, press ×2.
Play in slow motion	During playback, press ▶► SLOW.
Play frame by frame	During pause, press ►► FF.

### To resume normal playback

Press > PLAY.

#### qiT

- Adjust the picture using the PROGRAM +/- buttons on the VCR if:
  - -Streaks appear while playing in slow motion.
  - -Bands appear at the top or bottom while pausing.
  - -The picture shakes while pausing.

#### **Notes**

- The sound is muted during these operations.
- In the LP mode, noise may appear or there may be no colour.
- If the playback mode mark doesn't appear on the TV screen, press (+) DISPLAY.
- The picture may show noise when playing at high speed in reverse.
- Tapes recorded in the LP mode on other VCRs can be played back on this VCR but the picture quality cannot be guaranteed.

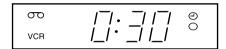
# Setting the recording duration time

After you have started recording in the normal way, you can have the VCR stop recording automatically after a specified duration.

### Before you start...

- Refer to "Index to parts and controls" for button locations.
  - While recording, press REC.

The  $\circlearrowleft$  indicator appears in the display window.



**?** Press ● REC repeatedly to set the duration time.

Each press advances the time in increments of 30 minutes.

The tape counter decreases minute by minute to 0:00, then the VCR stops recording and turns off automatically.

#### To extend the duration

Press • REC repeatedly to set a new duration time.

#### To cancel the duration

Press ● REC repeatedly until the ④ indicator disappears and the VCR returns to the normal recording mode.

### To stop recording

To stop the VCR while recording, press  $\blacksquare$  STOP.

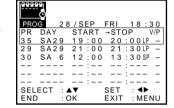
#### Note

 You cannot display the current tape time in the display window when setting the recording duration time.

# Checking/changing/cancelling timer settings

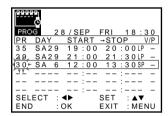
#### Before you start...

- Turn on your TV and set it to the video channel.
- Refer to "Index to parts and controls" for button locations.
  - **1** Press I/<sup>(1)</sup> to turn on the VCR.
  - 2 Press MENU, then press **↑**/**↓** to highlight TIMER PROGRAMMING and press OK.
    - If you want to change or cancel a setting, go on to the next step.
    - If you do not need to change or cancel the settings, press MENU, then turn off the VCR to return to recording standby.



**3** Press  $\uparrow/\downarrow$  to select the setting you want to change or cancel, then press  $\rightarrow$ .

The PR number on the selected row flashes.

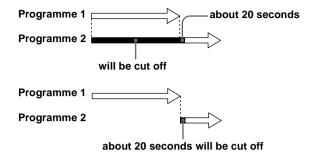


- To change the setting, press ←/→ to select the item you want to change, then press ↑/↓ to reset it.
  - To cancel the setting, press CLEAR.
- **5** Press MENU to exit the menu.

If any settings remain, turn off the VCR to return to recording standby.

### When the timer settings overlap

The programme that starts first has priority and the second programme starts recording only after the first programme has finished. If the programmes start at the same time, the programme listed first in the menu has priority.

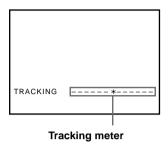


# Adjusting the picture

# Adjusting the tracking

Although the VCR automatically adjusts the tracking when playing a tape, distortion may occur if the recording is in poor condition. In this case, manually adjust the tracking.

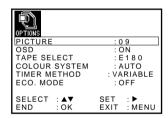
During playback, press PROGRAM +/- on the VCR to display the tracking meter. The distortion should disappear as you press one of the two buttons. To resume automatic tracking adjustments, eject the tape and re-insert it.



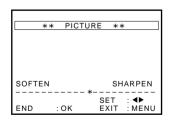
### Adjusting the picture sharpness

You can manually adjust the sharpness of the picture.

- During playback, press MENU, then press  $\uparrow/\downarrow/\longleftarrow/\Longrightarrow$  to highlight USER SET and press OK.
- **?** Press **↑**/**↓** to highlight PICTURE, then press  $\longrightarrow$ .



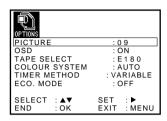
**?** Press  $\leftarrow / \rightarrow$  to adjust the sharpness. To soften the picture, press To sharpen the picture, press  $\rightarrow$ .

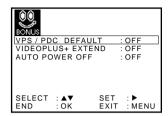


⚠ Press MENU to exit the menu.

# **Changing menu options**

Press MENU, then select USER SET or EASY OPERATION and press





- **?** Press **↑**/**↓** to select the option.
- **3** Press  $\rightarrow$  to change the setting, then press OK.
- ⚠ Press MENU to return to the original screen.

#### Menu choices

Initial settings are indicated in bold print.

#### **USER SET**

Menu option	Set this option to	
PICTURE	Adjusting the sharpness of the picture by pressing ←/→ buttons. Press ← to adjust the picture getting softness. Press → to adjust the picture getting sharpness.	
OSD	<ul> <li>ON to display the menu on the TV screen.</li> <li>OFF to disappear the menu from the TV screen.</li> </ul>	
TAPE SELECT	<ul> <li>E180 to use an E-180 or shorter type tape.</li> <li>E240 to use an E-240 type tape.</li> <li>E260 to use an E-260 type tape.</li> <li>E300 to use an E-300 type tape.</li> </ul>	
COLOUR SYSTEM	<ul> <li>AUTO to select the colour system automatically.</li> <li>PAL to use the tape recorded in the PAL colour system.</li> <li>B/W to use the tape recorded in black and white.</li> </ul>	

Menu option	Set this option to
TIMER METHOD	<ul> <li>VARIABLE to display the TIMER METHOD menu for selecting STANDARD or VIDEOPLUS when pressing the ② TIMER button.</li> <li>STANDARD to display the TIMER menu when pressing the ② TIMER button.</li> <li>VIDEOPLUS to display the VIDEOPLUS menu when pressing the ④ TIMER button.</li> <li>For details, see page 32 and 36.</li> </ul>
ECO. MODE	<ul> <li>ON to turn off the indicators in the display window to conserve the VCR's power.</li> <li>OFF to turn on the indicators in the display window while the VCR is standing by.</li> </ul>

### **EASY OPERATION**

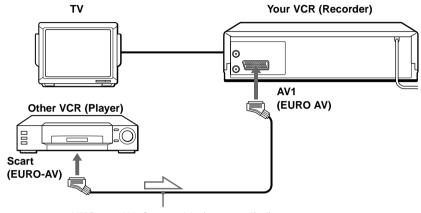
Menu option	Set this option to	
VPS/PDC DEFAULT	<ul><li> OFF to deactivate the VPS/PDC function.</li><li> ON to activate it.</li></ul>	
VIDEOPLUS+ EXTEND	<ul> <li>OFF to deactivate the VIDEOPLUS+ Extend function.</li> <li>10/20/30/60 (minutes) to extend the time of the VIDEO Plus+ setting by the selected amount of time.</li> </ul>	
AUTO POWER OFF	<ul> <li>OFF to deactivate the Auto Power Off function.</li> <li>2HOUR/3HOUR to turn the VCR off automatically if no signal is received and you do not press any of the buttons during this time.</li> </ul>	

# **Editing with another VCR**

#### How to connect to record on this VCR

Connect the line outputs of the other VCR to the input connector of this VCR as shown below.

#### Example



VMC-2121HG Scart cable (not supplied)

: Signal flow

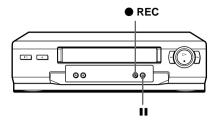
#### Note

• If the other VCR does not have a Scart (EURO-AV) connector, use the VMC-2106HG cable instead and connect the cable to the line out jacks of the other VCR.

## Operation (when recording on this VCR)

### Before you start editing

- Turn on your TV and set it to the video channel.
- Press INPUT SELECT to display the connected line in the display window.
- Press SP/LP to select the tape speed, SP or LP.



- 1 Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.
- 2 Insert a tape with its safety tab in place into this (recording) VCR. Search for the point to start recording and press **II** (pause).
- **?** Press REC on this VCR to set it to recording pause.
- ▲ To start editing, press the **II** (pause) buttons on both VCRs at the same time.

#### To stop editing

Press the  $\blacksquare$  (stop) buttons on both VCRs.

#### Tip

• To cut out unwanted scenes while editing, press II (pause) on this VCR when an unwanted scene begins. When it ends, press **II** (pause) again to resume recording.

# **Troubleshooting**

If you have any questions or problems not covered below, please consult your nearest Sony service facility.

	Symptom	Remedy		
er	The I/U (on/standby) switch does not function.	Connect the mains lead to the mains securely.		
Power	The power is turned on but the VCR does not operate.	• Moisture condensation has occurred. Turn the power off, unplug the mains lead and leave the VCR to dry for over three hours.		
Clock	The clock has stopped and ":" appears in the display window.	The clock stops if the VCR is disconnected from the mains for more than one hour. Reset the clock (and timer).		
Playback	The playback picture does not appear on the TV screen.	<ul> <li>Make sure the TV is set to the video channel. If you are using a monitor, set it to video input.</li> <li>If the VCR is connected to the TV with the Scart cable, make sure the VCR indicator is lit in the display window. Use the TV/VIDEO button on the remote commander to light up the VCR indicator.</li> </ul>		
	The picture is not clear.	<ul> <li>Existing broadcasts may interfere with the VCR. Reset th RF channel output of your VCR.</li> <li>Adjust the tracking with the PROGRAM +/- buttons on the VCR.</li> <li>The video heads are dirty (see the last page of Troubleshooting). Clean the video heads using the Sony 25CLD, E-25CLDR, or T-25CLW video head cleaning cassette. If these cleaning cassettes are not available in your area, have the heads cleaned at your nearest Sony service facility (a standard service charge will be required) Do not use a commercially available liquid type cleaning cassette other than Sony's, as it may damage the video heads.</li> <li>The video heads may have to be replaced. Consult your local Sony service facility for more information.</li> </ul>		
	The picture rolls vertically during picture search.	Adjust the vertical hold control on the TV or monitor.		
	The picture has no sound.	The tape is defective.		

	Symptom	Remedy
Recording	No TV programme appears on the TV screen.	<ul> <li>Make sure the TV is set to the video channel. If you are using a monitor, set it to video input.</li> <li>Existing broadcasts may interfere with the VCR. Reset the RF channel output of your VCR.</li> <li>Select the correct source with the INPUT SELECT button. Select a programme position when recording TV programmes; select a line input when recording from other equipment.</li> </ul>
	TV reception is poor.	<ul><li> Make sure the aerial cable is connected securely.</li><li> Adjust the TV aerial.</li></ul>
Œ	The tape starts playing as soon as it is inserted.	• The safety tab has been removed. To record on this tape, cover the tab hole (see page 30).
	The tape is ejected when you press ● REC.	• The safety tab has been removed. To record on this tape, cover the tab hole (see page 30).
	Nothing happens when you press ● REC.	Make sure the tape is not at its end.
ording	The timer does not operate.	<ul> <li>Check that the clock is set.</li> <li>Make sure a tape has been inserted.</li> <li>Check that the safety tab has not been removed.</li> <li>Make sure the tape is not at its end.</li> <li>Make sure a programme has been set for timer recording.</li> <li>Make sure your timer settings are past the current time.</li> <li>The clock stops if the VCR is disconnected from the mains for more than one hour. Reset the clock and timer.</li> <li>Turn the power off and unplug the mains lead.</li> </ul>
Timer recording	The VIDEOPLUS menu or the TIMER menu does not appear.	Check that TIMER METHOD in the USER SET menu is set correctly (see page 45).
_	The VPS/PDC function does not operate properly.	<ul> <li>Check that the clock and the date are set correctly.</li> <li>Check that the VPS/PDC time you set is the correct one (there might be a mistake in the TV programme guide). If the broadcast you wanted to record did not send the good VPS/PDC information, the VCR will not start recording.</li> <li>If the reception is poor, the VPS/PDC signal might be altered and the VCR might not start recording.</li> </ul>

	Symptom	Remedy	
	A tape cannot be inserted.	Check that a tape isn't already in the tape compartment.	
S	The remote commander does not function.	<ul> <li>Make sure you are pointing the remote commander at the remote sensor on the VCR.</li> <li>Replace all the batteries in the remote commander with new ones if they are weak.</li> <li>Make sure the TV / VIDEO remote control switch is set correctly.</li> </ul>	
Others	The tracking meter does not appear on the TV screen.	The recording condition of the tape is very poor and tracking cannot be adjusted.	
	The display window becomes dim.	• The display window automatically becomes dim when the VCR is in standby or timer recording mode.	
	The VCR needs to be cleaned.	• Clean the cabinet, panel and controls with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine.	

### Symptoms caused by contaminated video heads

Normal picture

• Rough picture

• Unclear picture

• No picture (or black & white screen appears)









terminal

contamination

# **Specifications**

### System

Channel coverage

PAL(I)

UHF B21 to B69

RF output signal

UHF channels 21 to 69

Aerial out

75-ohm asymmetrical aerial socket

Tape speed

SP: PAL 23.39 mm/s

(recording/playback)

NTSC 33.35 mm/s

(playback only)

LP: PAL 11.70 mm/s

(recording/playback)

NTSC 16.67 mm/s

(playback only)

Maximum recording/playback time

10 hrs. in LP mode (with E300 tape)

Rewind time

Approx. 60 sec. (with E180 tape)

#### Inputs and outputs

AV1 (EURO AV)

21-pin

Video input: pin 20

Audio input: pins 2 and 6

Video output: pin 19

Audio output: pins 1 and 3

#### General

Power requirements

230 V AC, 50 Hz

Power consumption

15 W

5 W (ECO. MODE is set to ON, Standby

mode)

Operating temperature

5°C to 40°C

Storage temperature

-20°C to 60°C

Dimensions

Approx.  $360 \times 94 \times 255 \text{ mm (w/h/d)}$ 

including projecting parts and controls

Mass

Approx. 2.8 kg

# Supplied accessories

Remote commander (1)

R6 (size AA) batteries (2)

Aerial cable (1)

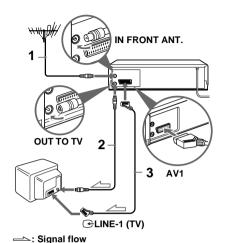
Design and specifications are subject to change without notice.

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# Quick Start Guide

# 1 Connecting the VCR



- 1... Connect the aerial to IN FRONT ANT. of the VCR.
- 2... Connect OUT TO TV and the aerial input of your TV using the supplied aerial cable.
- For better picture and sound, connect AV1
   (EURO AV) to your TV using a Scart
   cable if your TV has a Scart (EURO-AV)
   connector.

# 2 Using the Auto Set Up function

1 ... Turn on your TV and set it to the video channel.

If your TV does not have a Scart (EURO-AV) connector, tune the TV to channel 21 (the initial RF channel of this VCR). Refer to your TV's manual for TV tuning instructions. If the picture does not appear clearly, see "To change the RF channel."

- **2** ...Connect the mains lead to the mains. The VCR automatically turns on.
- 3 ... Press OK.

When all of the receivable channels are preset, the menu disappears from the TV screen. You can rearrange the programme position in any order (see "Changing/disabling programme positions").

After the search or download is complete, the current time appears automatically. If the time does not appear, set the clock manually. See "Setting the clock."

Now you can operate your VCR.

Sony Corporation AC68-01398A